



## FR2AAFC ~ FR2J AFC Series

### Surface Mount Fast Recovery Rectifier

**Voltage**

**50~600 V**

**Current**

**2 A**

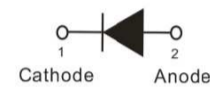
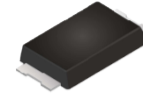
#### Features

- Glass passivated chip junction
- Fast reverse recovery time
- Low forward voltage drop
- Low switching losses, high efficiency
- High forward surge capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

#### Mechanical Data

- Case : Molded plastic, SMAF-C
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0012 ounces, 0.034 grams

#### SMAF-C



### Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

PARAMETER	SYMBOL	FR2AAFC	FR2BAFC	FR2DAFC	FR2GAFC	FR2J AFC	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	V
Maximum DC Blocking Voltage	V <sub>R</sub>	50	100	200	400	600	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	2					A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I <sub>FSM</sub>	50					A
Forward Voltage at 2A	V <sub>F</sub>	1.3					V
Reverse Current	I <sub>R</sub>	1					uA
Typical Junction Capacitance Measured at 1 MHz And Applied V <sub>R</sub> = 4V	C <sub>J</sub>	24				14	pF
Reverse Recovery Time <sup>(Note 1)</sup>	T <sub>RR</sub>	150				250	ns
Typical Thermal Resistance <sup>(Note 2)</sup>	R <sub>θJL</sub>	22					°C/W
<sup>(Note 3)</sup>	R <sub>θJA</sub>	150					
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150					°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150					°C

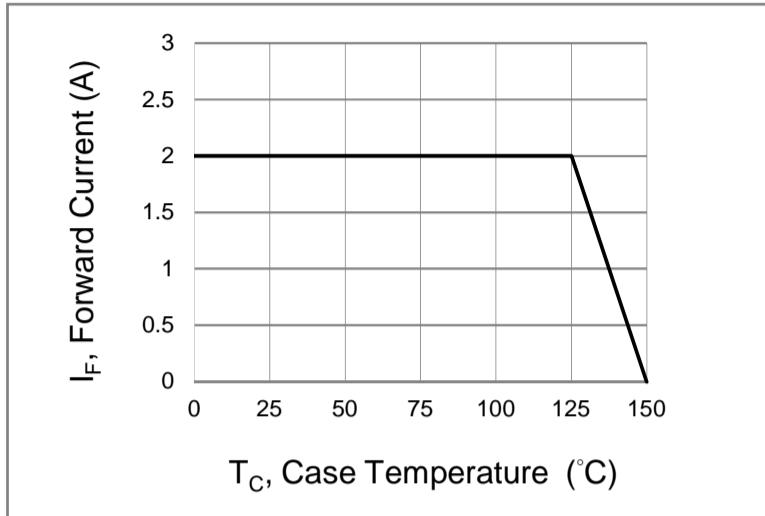
#### NOTES:

1. Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, Recover to 0.25A
2. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.
3. Mounted on a FR4 PCB, single-sided copper, standard footprint

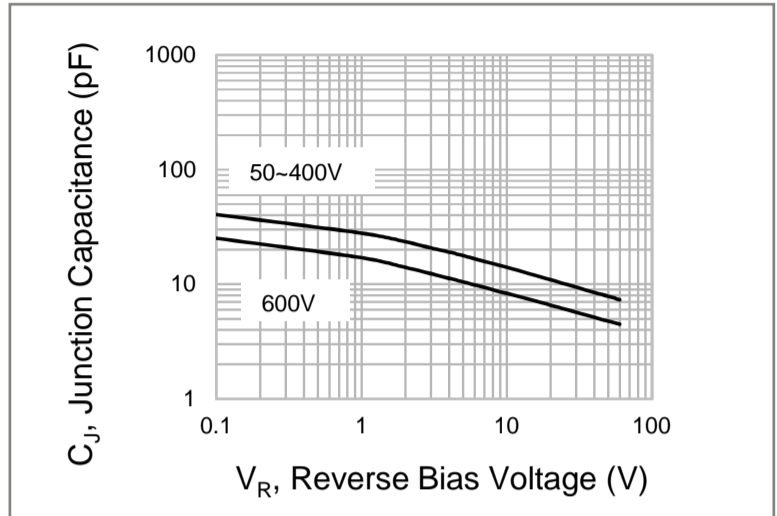


# FR2AAFC ~ FR2JAFC Series

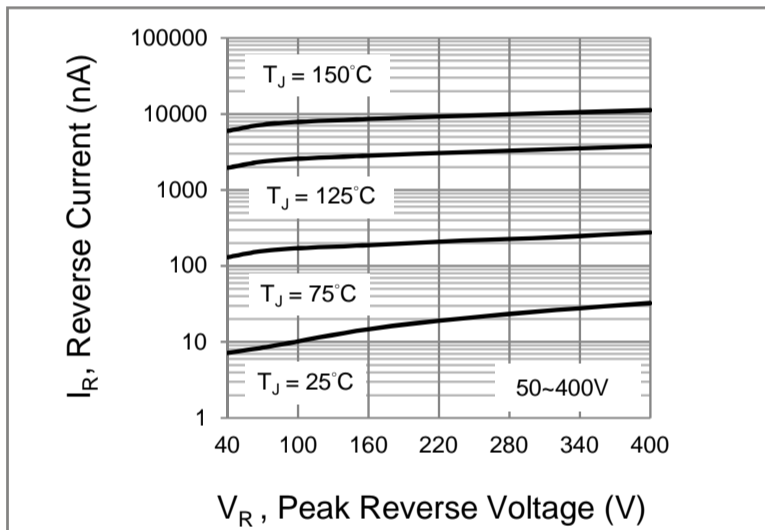
## RATING AND CHARACTERISTIC CURVES



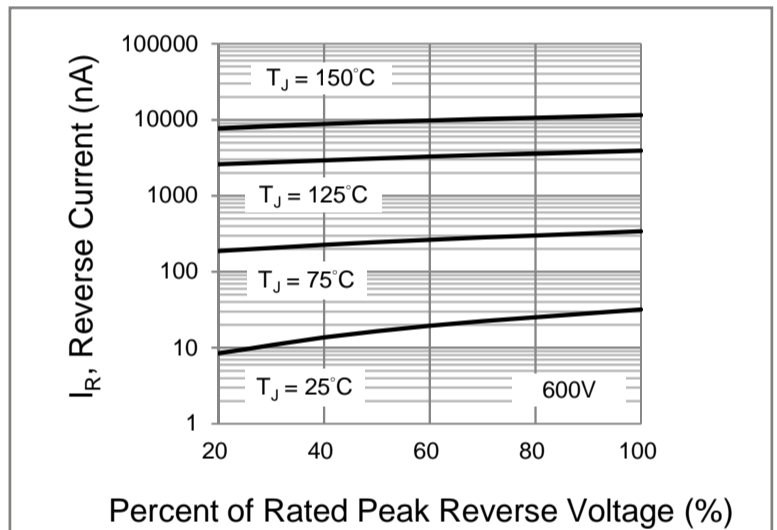
**Fig.1 Forward Current Derating Curve**



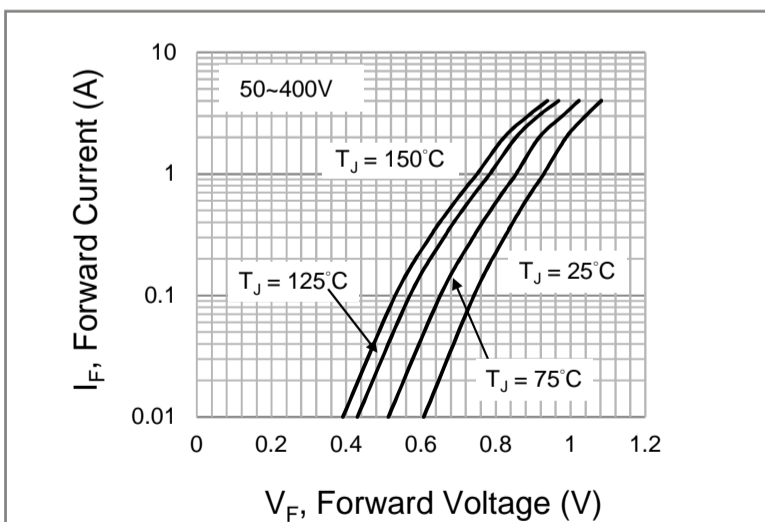
**Fig.2 Typical Junction Capacitance**



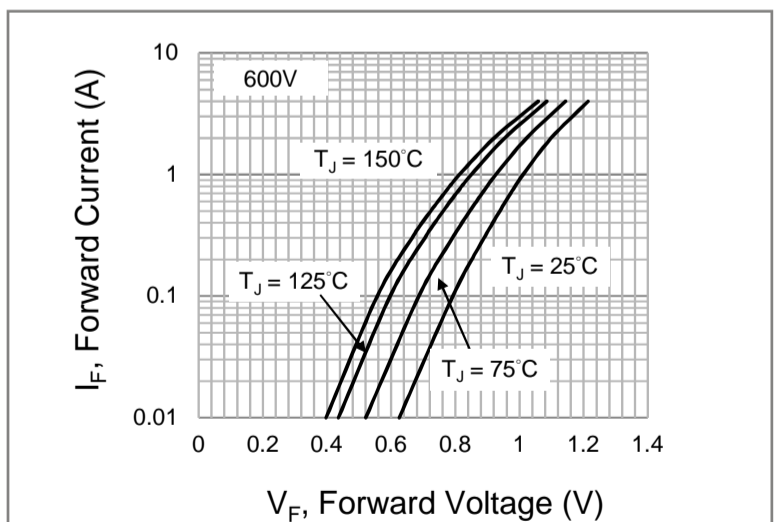
**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Reverse Characteristics**



**Fig.5 Typical Forward Characteristics**



**Fig.6 Typical Forward Characteristics**

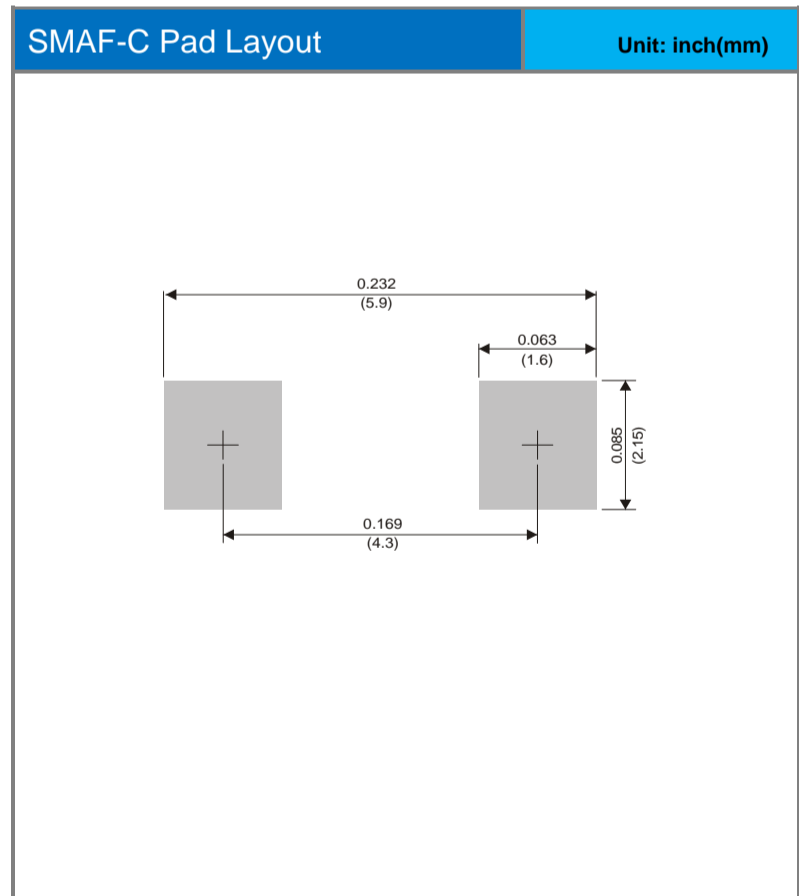
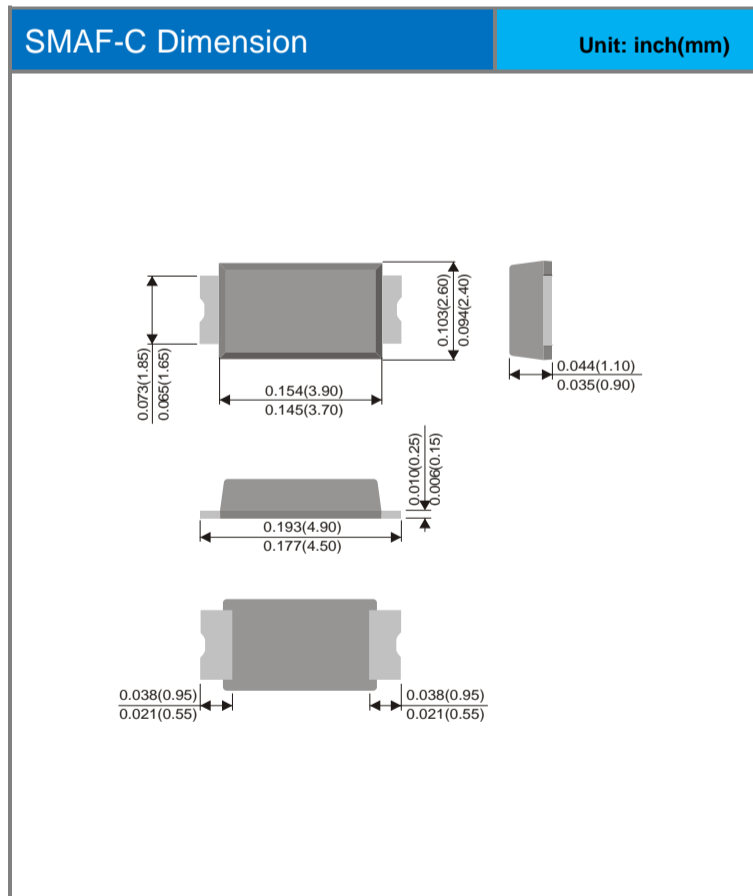


## FR2AAFC ~ FR2J AFC Series

### Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
FR2AAFC_R1_00001	SMAF-C	3K pcs / 7" reel	FR2A	Halogen free
FR2BAFC_R1_00001	SMAF-C	3K pcs / 7" reel	FR2B	Halogen free
FR2DAFC_R1_00001	SMAF-C	3K pcs / 7" reel	FR2D	Halogen free
FR2GAFC_R1_00001	SMAF-C	3K pcs / 7" reel	FR2G	Halogen free
FR2J AFC_R1_00001	SMAF-C	3K pcs / 7" reel	FR2J	Halogen free

### Packaging Information & Mounting Pad Layout





## FR2AAFC ~ FR2J AFC Series

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